

CLAIMS:

1. In a network, said networks supporting a plurality of network objects,
and wherein said network objects require communications between said plurality of
5 network objects;

a method for providing communications between network objects, the steps of
said method comprising:

registering said objects desiring communications;

accepting a communications message from at least one of said objects, said
10 communication addressing one of said plurality of network objects;

determining the mode of message delivery for said message;

delivering said message according to the mode of message delivery
determined.

15 2. The method as recited in Claim 1 wherein said network comprises a
plurality of distributed network objects and further wherein the step of registering
objects further comprises registering said plurality of distributed network objects in a
central service.

20 3. The method as recited in Claim 1 wherein said step of accepting a
communication message further comprises handling said communication message in
an event-driven programming mode.

4. The method as recited in Claim 1 wherein the step of determining the
25 mode of message delivery further comprises selecting a synchronous mode of
message delivery.

5. The method as recited in Claim 1 wherein the step of determining the
mode of message delivery further comprises selecting an asynchronous mode of
30 message delivery.

6. The method as recited in Claim 1 wherein the step of determining the
mode of message delivery further comprises selecting peer-to-peer mode of message
delivery.

7. The method as recited in Claim 1 wherein the step of determining the mode of message delivery further comprises selecting store-and forward mode of message delivery.

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8. The method as recited in Claim 1 wherein the step of determining the mode of message delivery further comprises selecting a broadcast mode of message delivery.

10 9. The method as recited in Claim 1 wherein the step of determining the mode of message delivery further comprises selecting a publication-and-subscriber mode of message delivery.

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15 10. In a network comprising a plurality of users communicating with a plurality of spaces and a plurality of services associated with said spaces available within said network, a method for facilitating communications between users and services within said network, the steps of said method comprising:

registering said spaces, as each said space is available;

broadcasting a message to all spaces when a space becomes available; and

20 registering said services to its associated space whereby said registered services are available for use by said plurality of services.

11. The method as recited in Claim 10 further comprising the steps of:

unregistering said space, as each said space is unavailable; and

25 broadcasting a message to all spaces when a space becomes unavailable.

12. The method as recited in Claim 10 further comprising the steps of:

sending a heartbeat message to said plurality of spaces periodically to ensure operability of said spaces; and

30 receiving acknowledgement messages from each said space properly operating.

13. The method as recited in Claim 10 further comprising the steps of:

sending a find service message from a user requesting a particular service; and

determining whether said particular service is available with in available space.

14. In a network, said network comprising a plurality of services and
5 wherein said plurality of services need to communicate with others of said plurality of services, a method for allowing communications between said plurality of services, the steps of said method comprising:

creating one or more event channels, said event channels enabling
communications between said plurality of services;

10 notifying all spaces that an event channel exists;

subscribing services to said events channel to poll for events within said event
channel; and

publishing said events from services to said event channel so that other
services may poll said events.

15 15. The method as recited in Claim 14 wherein said event channels enable asynchronous modes of communications.

16. In a network, said networks supporting a plurality of network objects,
20 and wherein said network objects require communications between said plurality of network objects;

a system for providing communications between network objects comprising:

a means for registering said objects desiring communications;

25 a means for accepting a communications message from at least one of said objects, said communication addressing one of said plurality of network objects;

a means for determining the mode of message delivery for said message;

a means for delivering said message according to the mode of message
delivery determined.

30 17. The system as recited in Claim 16 wherein said network comprises a plurality of distributed network objects and further wherein said system further comprises a means for registering said plurality of distributed network objects in a central service.

18. The system as recited in Claim 16 wherein said means for accepting a communication message further comprises a means for handling said communication message in an event-driven programming mode.

5 19. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting a synchronous mode of message delivery.

10 20. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting an asynchronous mode of message delivery.

15 21. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting peer-to-peer mode of message delivery.

20 22. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting store-and forward mode of message delivery.

23. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting a broadcast mode of message delivery.

25 24. The system as recited in Claim 16 wherein said means for determining the mode of message delivery further comprises a means for selecting a publication-and-subscriber mode of message delivery.